SIEMENS

MAMMOMAT 1000/3000

SP

Service

Installation Instructions

IR-Remote Control stand

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English
Print No.: SPB7-230.031.13.01.02
Doc. Gen. Date: 08.99
Replaces: n.a
65 27 035

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General

This document describes the workflow how to dismount the control button function on the tube head and replace it with a remote control system.

Parts included

The installation kit 65 22 176 contains the following parts:

Pos	Amount	Part. No	Name
1	1	65 21 749	Remote control
	1	65 21 822	Circuit-board (D812)
	4	65 21 830	IR-detector (D813)
	1	65 22 069	Cable
	1	65 22 051	Cables
2	1	65 22 358	Cover, right
3	1	65 22 366	Cover, front
4	1	65 22 341	Cover, left
5	1	65 27 035	Installation Instructions (This document)
6	2	60 23 261	Screw
7	2	61 63 617	Spacer
8	2	65 22 333	Magnet holder
9	1	65 22 325	Detector cover
10	1	62 93 901	Cable

Document required

- MAMMOMAT 1000/3000; Installation and Start-up Instructions.

Tools required

- Standard service equipment

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Preparatory work

Dismounting swivel-arm covers

Before installing the remote control equipment, the front, left and right covers must be dismounted.

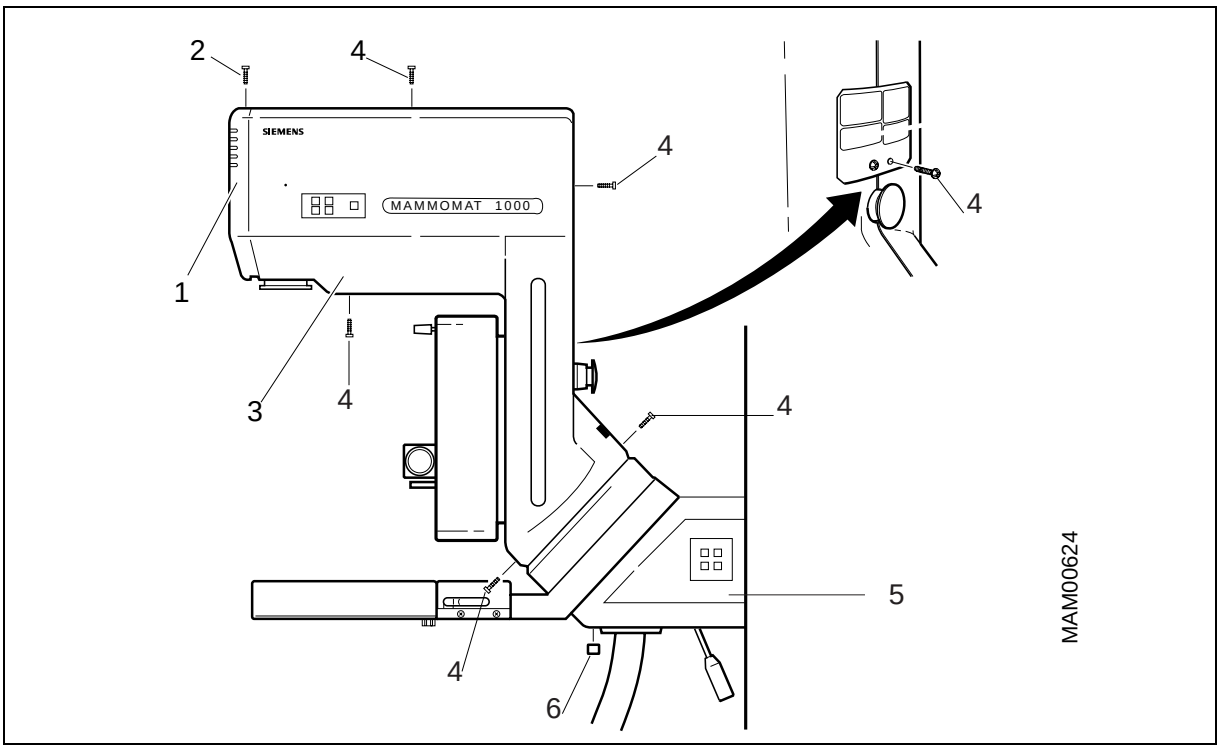

Fig. 1

1. Turn off the system.
2. Dismount the front cover (1/Fig. 1) from the side covers by unscrewing two screws (2/Fig. 1).
3. Dismount the side covers (3/Fig. 1) by unscrewing six screws (4/Fig. 1) on each side.

NOTICE	**Use precaution when dismounting/loosening the swivel-arm covers to avoid internal cable damage.**

4. Dismount one of the lower covers (5/Fig. 1) by unscrewing six screws.
5. Make a u-hole on the dismounted lower cover so that the cable with plug can be pulled out. The hole can be made by either a cutter or a file.

NOTICE	**Make sure that the hole will be hidden by the detector cover (6/ Fig. 1).**

Disconnecting cables from control-button and patient handles

Before installing the remote control equipment, the cables to control-button boards and patient handles must be disconnected.

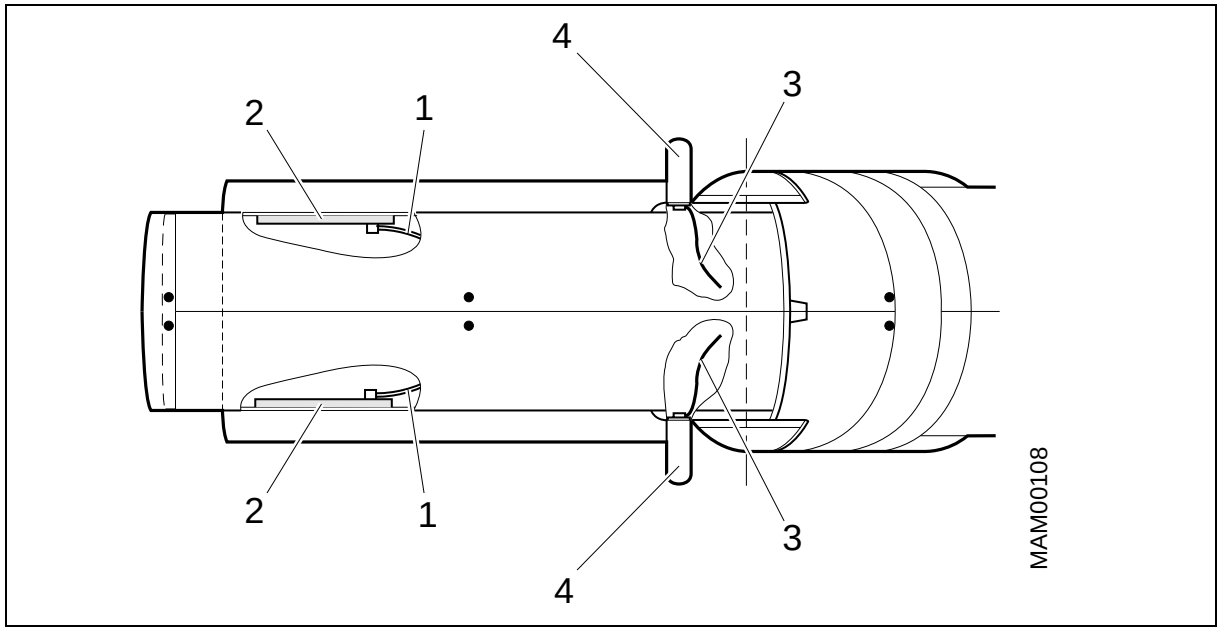

Fig. 2

1. Disconnect ground wires (3/Fig. 2) from patient handles (4/Fig. 2).
2. Disconnect and remove cables at contacts X851 and X865 from circuit board D805.
3. Disconnect and remove cables at contact X807 (1/Fig. 2) from control-button circuit boards D807 (2/Fig. 2).

Attaching the remote control system

Mounting P.C board D812 and connecting cables to P.C boards

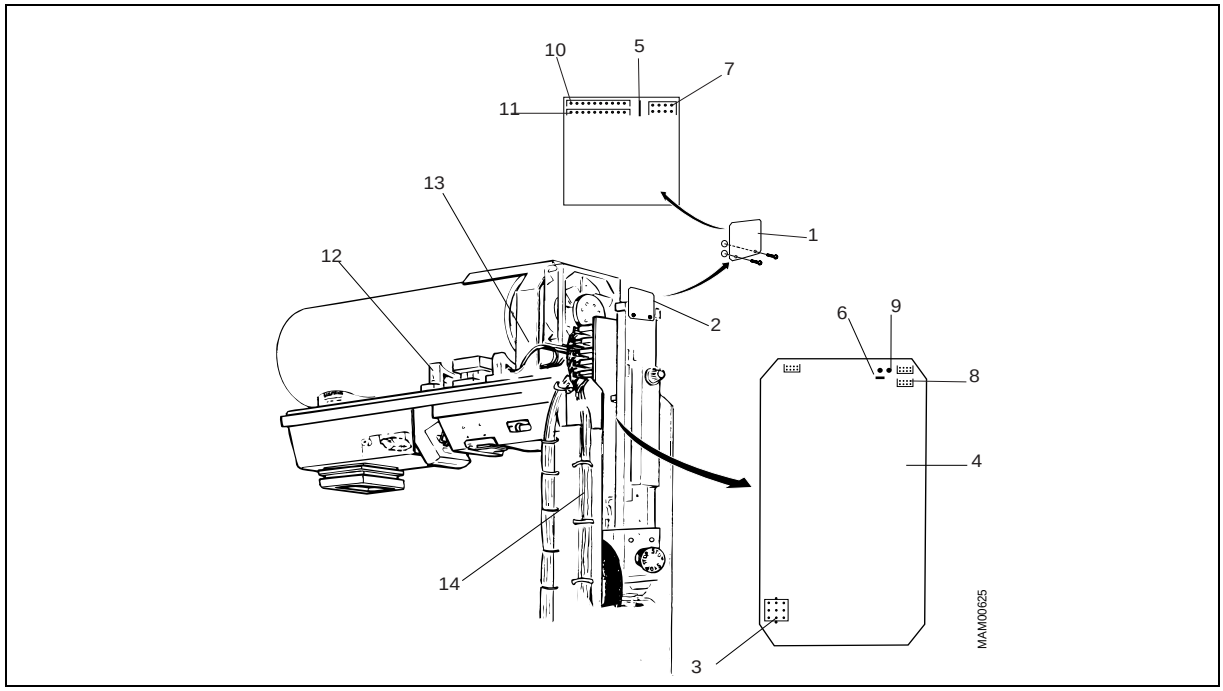

Fig. 3

1. Mount P.C board D812 (1/Fig. 3) on the back of the X-ray stand (2/Fig. 3) with two screws 60 23 261 and two spacers 61 63 617.
2. Connect cable 62 93 901 to pin 2 on contact X860 (3/Fig. 3) on P.C board D805 (4/Fig. 3) and to X81 (5/Fig. 3) on P.C board D812 (1/Fig. 3).

NOTICE **Check if R50 (6/Fig. 3) on D805 (4/Fig. 3), versions before 03, is short circuited. If it isn´t, it shall be done.**

3. Connect cable 65 22 069 to X3 (7/Fig. 3) on P.C board D812 (1/Fig. 3) and to X864 (8/Fig. 3)Fig. 3Fig. 3.
4. Solder the red wire to 5V (9/Fig. 3) on D805 (4/Fig. 3).
5. Connect cable 65 22 051 to X2A (10/Fig. 3) and X2B (11/Fig. 3) on P.C board D812 (1/Fig. 3).
6. Strain the cables with cable ties:
   cable (X1C) to front cover detector (12,13/Fig. 3)
   cable (X1A/ Fig. 5) to side cover detector (13/Fig. 3)
   cable (X1B/Fig. 5) to side cover detector (13/Fig. 3)
   cable (X1D) to the lower cover detector (14/Fig. 3)

Attaching detectors

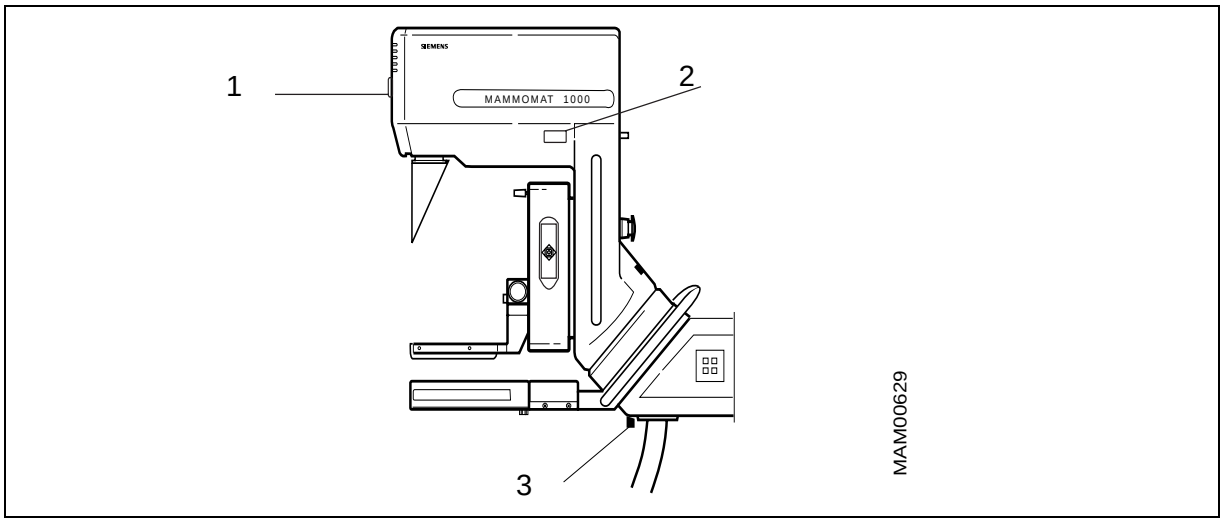

Fig. 4

1. Attach one detector D813 each inside the front (1/Fig. 4), left and right (2/Fig. 4) and inside the detector cover (3/Fig. 4).

Connecting cables to IR-detectors and mounting new swivel-arm covers

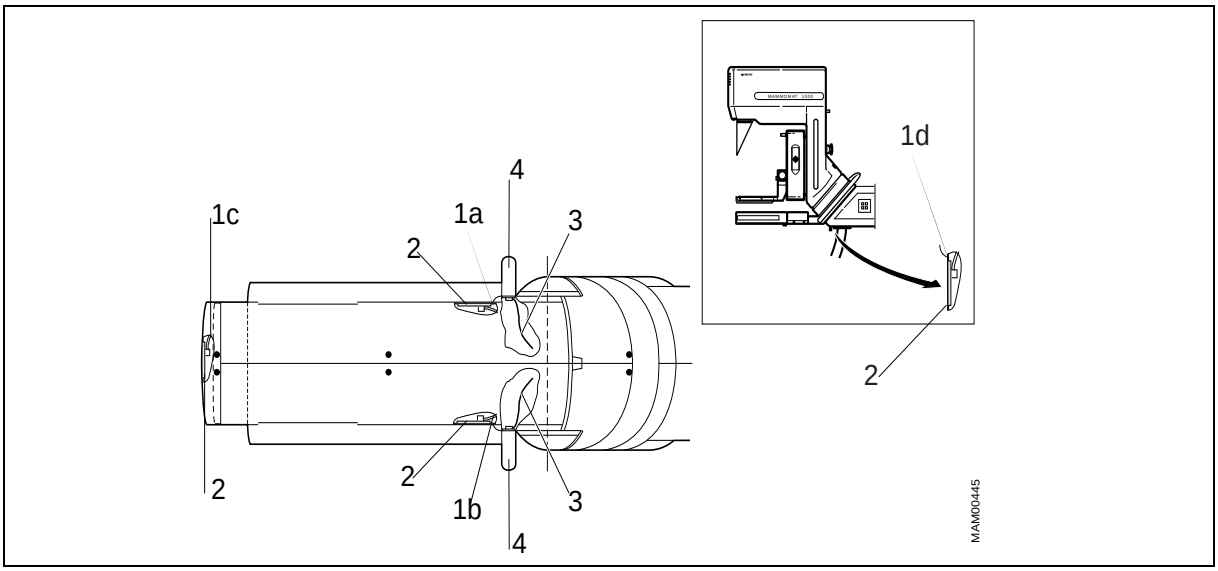

Fig. 5

1. Connect cable X1A (1a) to detector D813 (2) and the ground wire (3) to the patient handle (4). (Fig. 5)
   Mount the side cover.
2. Connect cable X1B (1b) to detector D813 (2) and the ground wire (3) to the patient handle (4). (Fig. 5)
   Mount the side cover.
3. Connect cable X1C (1c) to detector D813 (2). (Fig. 5)
   Mount the front cover.
4. Connect cable X1D (1d) to detector D813 (2). (Fig. 5)
   Mount the detector cover (3/Fig. 4) with the existing screws.

Mounting the remote control holder

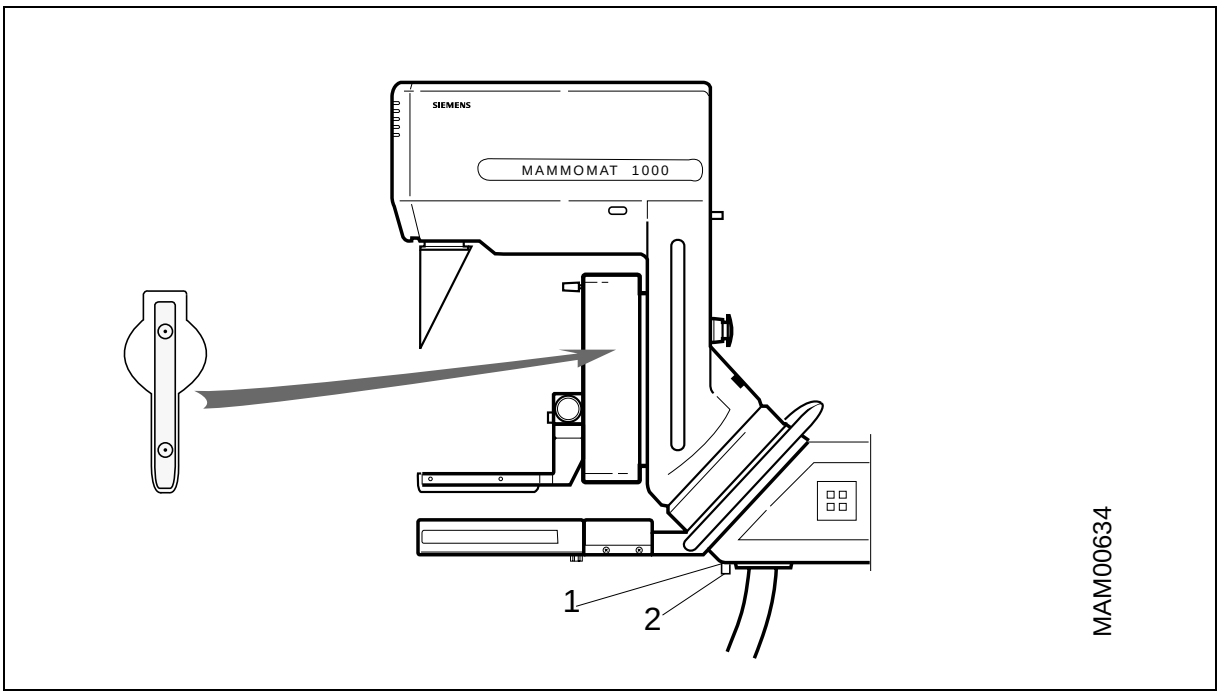

Fig. 6

1. Clean the surface and attach one magnet holder 65 22 333 on each side of the compression unit.

NOTICE	**Do not attach the magnet holder on the swivel-arm covers.**

Checking the remote control system

When the remote control system is installed, check the rotary motion, the vertical adjustment and the field light lamp for proper functions.

Rotary motion

1. System "OFF".
   The rotary motion and the vertical adjustment of the swivel-arm system shall be blocked.

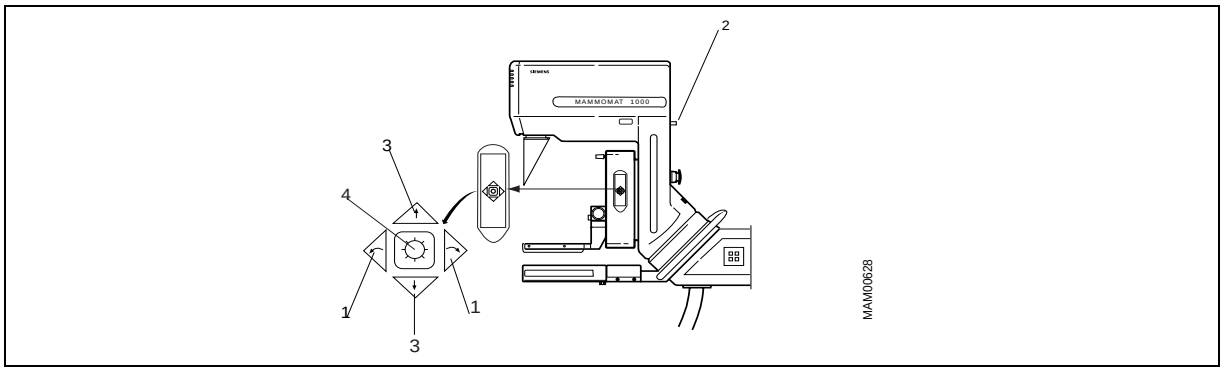

Fig. 7

2. System "ON", object table installed and projection angle set to minimum with presetting knob (2/Fig. 7).
3. Check the rotary motion of the swivel-arm system by pressing buttons (1/Fig. 7) one by one.
   The rotation of the swivel-arm system shall stop when the button is released or when end position is reached (+135 degrees clockwise and -180 degrees counterclockwise). The projection angle is shown on the display at the lower part of the stand.
4. Set the projection angle to 60 degrees with presetting knob (2/Fig. 7).
   The preset angle is displayed for approx 3 s.
5. Press one of the buttons (1/Fig. 7).
   The rotary motion of the swivel-arm system shall stop automatically when the preset projection angle (both + and -) is reached and at 0 degrees

NOTICE	**The motion shall stop if two buttons are pressed simultaneously.**

Vertical adjustment

1. Press the buttons for upward and downward movement (3/Fig. 7) of the swivel-arm system. The movement shall stop automatically when either end position is reached or when the button is released.

Field light lamp

1. Switch on the field light by pressing the switch (4/Fig. 7). The field light shall go out automatically after a preset period of time (normally 20 s).

Final procedure

Fill in the Lina Card and return it to the address stated in the instructions on the card.

Using other remote controls

If other remote controls than those delivered with this installation kit are used, code them so that they are in accordance with the coding of the P.C board D812 in MAMMOMAT 1000. (Six different address modes are available.)

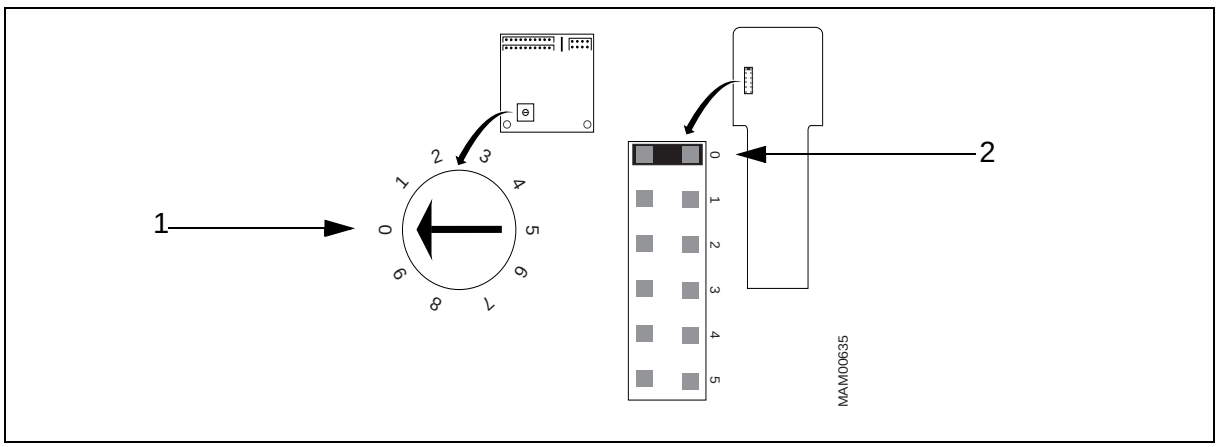

Fig. 8

1. Check the coding of P.C board D812 (1/Fig. 8) in MAMMOMAT 1000.
2. Place the jumper on the P.C board (2/Fig. 8) in the remote control in accordance with the coding of the P.C board in MAMMOMAT 1000.

NOTICE	**If there are more than one Mammomat 1000 in the same area, each must have a unique address mode.**

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